

## **Toolbox**

### **Field of Invention**

The present invention relates to a toolbox.

### **Background of Invention**

Referring to Figure 11, a toolbox includes two shells 40 connected with each other. Each shell 40 includes a space 41 defined therein and two series of tenons 42 formed thereon. The space 41 is located between the series of tenons 42. Several tool holders 20 are put in the space 41 so as to hold tools. Each end of each tool holder 20 defines at least one mortise 21 for receiving at least one of the tenons 42. The tool holders 20 lie on the shells 40. The tools also lie on the shells 40. However, it is inconvenient to take the tools from the tool holders 20 in such a position. Furthermore, the tenons 42 cannot be securely engaged with the mortises 21. The tool holders 20 can easily be detached from the shells 40 because of vibration. Thus, the tool holders 20 may fall on the ground when the toolbox is opened, and the tools may be detached from the tool holders 20 and dispersed. Therefore, the tool holders 20 and the tools may be damaged.

The present invention is therefore intended to obviate or at least alleviate the problems encountered in prior art.

### **Summary of Invention**

The primary objective of the present invention is to provide a toolbox for

1 convenient use.

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3 According to the present invention, a toolbox including two shells  
4 pivotally connected with each other and at least one tool holder pivotally  
5 connected with one of the shells for holding at least one tool.

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7 Other objects, advantages, and novel features of the invention will  
8 become more apparent from the following detailed description when  
9 taken in conjunction with the attached drawings.

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#### 11 **Brief Description of Drawings**

12 The present invention will be described through detailed illustration of  
13 embodiments referring to the attached drawings.

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15 Figure 1 is a perspective view of a toolbox according to a first  
16 embodiment of the present invention.

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18 Figure 2 is similar to Figure 1 but showing the toolbox in an open  
19 position.

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21 Figure 3 is a partial perspective view of the toolbox of Figure 2.

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23 Figure 4 is a cutaway view of the toolbox of Figure 3.

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25 Figure 5 is similar to Figure 3 but showing tool holders in an operative  
26 position.

1 Figure 6 is a cross-sectional view of the toolbox of Figure 5.

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3 Figure 7 is a perspective view of a toolbox according to a second  
4 embodiment of the present invention.

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6 Figure 8 is a partial perspective view of the toolbox of Figure 7.

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8 Figure 9 is a cutaway view of the toolbox of Figure 8.

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10 Figure 10 is similar to Figure 8 but showing tool holders in an operative  
11 position.

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13 Figure 11 is a top view of a conventional toolbox.

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15 **Detailed Description of Preferred Embodiment**

16 Referring to Figures 1 to 6, according to a first embodiment of the present  
17 invention, a toolbox includes two shells 10 pivotally connected with each  
18 other and a plurality of tool holders 20 pivotally connected with each  
19 shell 10.

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21 Referring to Figures 1-3, the toolbox includes a snap fastener 16 for  
22 closing the shells 10. The snap fastener 16 includes a flap 11 formed on  
23 one of the shells 10 and a hook 12 formed on the other of the shells 10 for  
24 engagement with the flap 11. Each shell 10 includes a space 13 defined  
25 therein and two reinforcement plates 14 formed thereon. One of the  
26 reinforcement plates 14 defines a plurality of pockets 140, and the other

1 of the reinforcement plates 14 defines a plurality of holes 144. Each  
2 pocket 140 includes a semi-circular bottom 141. Two ridges 142 are  
3 formed on the bottom 141 of each pocket 140. A recess 143 is defined  
4 the bottom 141 of each pocket 140.

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6 A plurality of positioning elements 15 is formed on each shell 10.

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8 The tool holders 20 are separately arranged in each space 13. Each tool  
9 holder 20 includes a plurality of sockets 21 and a shaft 24 on which all  
10 the sockets 21 are mounted. Each socket 21 can receive a tool 30.  
11 Each shaft 24 includes a first end inserted in one hole 144 and a second  
12 end inserted in one pocket 140. Preferably, the second end of each shaft  
13 24 is connected with a joint 23 that is inserted in one pocket 140. The  
14 joint 23 includes a plurality of detents 230 formed thereon.

15

16 Figure 4 shows a pocket 140 receiving a joint 23. The ridges 142 of the  
17 pocket 140 retain the joint 23 in the pocket 140. Selective one of the  
18 detents 230 of the joint 23 enters the recess 143 of the pocket 140 so as to  
19 retain the joint 23 in position relative to the reinforcement plate 14.

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21 Figures 5 and 6 show a tool holder 20 is in an upright position, a tool  
22 holder 20 in a tilted position and two tool holders 20 lying on two  
23 positioning elements 15. A positioning element 15 abuts and retains in  
24 position the tool holder 20 that is in the upright position.

25

26 As discussed above, each tool holder 20 and related tools 30 can be put in

1 desired one of several positions. Therefore, it is convenient to take the  
2 tools 30 from the tool holder 20.

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4 Figures 7 to 10 show a second embodiment according to the present  
5 invention. The second embodiment is identical to the first embodiment  
6 except that each dent 230 is replaced with a recess 231, and each recess  
7 143 is replaced with a dent 145.

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9 The present invention has been described through detailed illustration of  
10 two embodiments. Those skilled in the art can derive variation from the  
11 embodiments without departing from the scope of the present invention.  
12 Therefore, the embodiments shall not limit the scope of the present  
13 invention defined in the claims.

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